

XVIII. *Description of Conferva umbilicata, a new Plant, from New South Wales.*

*By Lieutenant Colonel Thomas Velley, F. L. S.*

*Read July 2; 1799.*

CONFERVA UMBILICATA.

*Conferva fronde dilatata filamentis reticulatis, centro radicali.*

T A B. VII.

THIS singular vegetable production was discovered by accident on the stem of a large *Fucus* from New South Wales\*.—After having placed the latter in water for the space of three or four days, a very fine filmy substance was observed floating close to the stem, which immediately collapsed, and was scarcely discoverable when the *Fucus* was taken out of the vessel. Upon a more minute investigation, two or three separate plants were found strongly attached to the stem; all of which, from their extreme tenuity, were in some degree torn.

The frond of the largest might be between three and four inches diameter; it probably was of greater extent in its perfect state, and seemed to favour a circular mode of growth. The base is somewhat central, and from it proceed two or three apparently

\* Sent by Governor Hunter, who very laudably made a collection of plants for the purpose of promoting Natural History.

membranaceous leaves, giving the frond the form of an umbilicated *Ulva*. Under the microscope several cylindrical stems, not larger than a hair, were found to diverge suddenly in different directions, producing similar ramifications in distinct whorls at small distances, and carrying with them innumerable reticulated ramules combined together in all directions; some of which seemed in a small degree to favour a circular tendency: the whole forming a most beautiful web of cylindrical filaments, far exceeding the finest lace, and setting at defiance the utmost art of the pencil. The interstices do not retain any regular or prevailing form throughout, as they appear to do in the *Conferva reticulata*; but are united with each other in the manner above mentioned.

Two circumstances are to be observed in the structure of this plant. First, the ramules, however varied in their direction, unite with the main stems at regular joints; while the separations, or diaphragms, as they are generally called in the *Confervæ*, are evidently apparent at those points of union. Secondly, between the interstices small subacute spinules frequently appear. Hence I was induced to consider this vegetable production, however singular in its mode of growth, as a real *Conferva*. As the ramifications brought to my mind the veins of a leaf, I at first examined it under a notion of its being the skeleton of such a body, after it had been divested of its cellular substance: but as this web so greatly surpasses in tenuity any of those appearances, I conclude it could never have continued in so distinct and organized a state, if its present form had been owing to an anatomical process, which sometimes accidentally takes place in decayed leaves.

The filaments, separately viewed, were transparent, but contracted a degree of opacity at the joints. The whole plant, from the closeness of its texture, when taken in the mass, has a sombre green tint.